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Click! Folie a Deux

Silvina Manrique

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by

Silvina Manrique

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Professor Jack Slutzky, Chairperson
School of Fine and Applied Arts — Date 8/12/95

Professor Mark Collien
National Center on Education and the Economy — Date

Professor Stephen Kurtz
School of Computer Science and Information Technology — Date 5/15/95

(On sabbattical, in Mexico)
Professor Skip Battaglia
Film & Video Department — Date

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Silvina Manrique

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A ti Nora, simplemente por ser
A ti mamushka, por la vida, tu amor y apoyo incondicionales,
A ti Teo, por ser un maravilloso ángel de la guarda,
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OBJECTIVES

After exploring the pros and cons of different software and hardware, I decided that I wanted to develop the animation for my thesis in what I call 2 1/2 D. I wanted to create a look that would be similar to that of traditional, non-digital animation; however I wanted to take advantage of the ease and control a computer environment lends to art. I had not been able to get a rapport with 3D graphics. I found them too cold for the kind of mood I wanted to create. I had seen orthodox rotoscoped animation and I was fascinated with the expression of the characters. I started researching for a way to do rotoscoping with Macintosh computers. I was happy with the idea that I would be able to create 2D graphics that would not be too ... flat!. The live action footage that served as the backbone for the animation would give the drawings a "lift" and a new dimension. In deciding to use this technique, I was also avoiding the dismal experiences of 3D rendering. I had traded some of the drawbacks of the 3D world but not all of them. I would not have to wait for hours and hours of rendering to see the final product, but instead I would have to produce every frame composite from scratch. Using a 2D environment, I would have been able to re-use cast members and to have the computer do some in-betweening; using 3D graphics meant only having to create my characters once and to let the computer do the camera and frame composing after the modeling and scripting of the animation. I still decided to choose rotoscoping as my technique. I had always been interested in film restoration and frame composing for special effects. The process I chose to develop the animation for my thesis was very tedious and challenging, but it was also the technique that I felt would keep me happy and interested throughout the production.

This was another goal I had set for myself. I wanted to have fun, I knew I had long days ahead of me composing the animation frame by frame. I had made up my mind I would choose to animate a story with a message, but I would not be

controversial. I was never fond of art as protest. Although I respect it, I believe in art as a sublimation of the soul, a balm for the human spirit, the *joie de vivre*. I prefer to propose change by taking action in alternative ways, rather than to just protest something; I prefer not to use art as an expression of protest. Because of these reasons, I wanted to focus on a piece that would be aesthetically pleasing and fulfilling to me. Living in two cultures, I was always curious to find what is universally uplifting. Humor as an avenue for relief of the everyday routine appeals to people in different ways. As an animator, I wanted to create a piece that would amuse people with a different cultural background. In slapstick comedy, I found a common denominator to carry the narration of my story. I believe it is because this type of comedy was best done in the silent movies of the Black and White era, when no constrains were set by the verbal language. The interaction of the hero and the anti-hero depended solely on cues that were understood with great empathy by audiences of different backgrounds. With my goals in my mind and in my heart, I started my research. Then it begins...

THE CREATIVE IDEA

Being true to my goal to enjoy my thesis, I decided to set the story in one of my favourite settings: that of an art museum. As an undergraduate I had spent a quarter in Florence, Italy, and I had practically spent everyday of my visit at an art gallery. I had many "museum stories"; somehow, my classmates and I would end up being a curiosity to the visitors as much as the pieces in the exhibit. We would be carefully watched by the staff as we did our research, and sometimes, very mischievously, but also very innocently, we would challenge their pomp and ceremony. The idea of "no harm done" of these days reminded me of the silent movies, where the anti-hero is the hero indeed, the audience recognizes him as the challenger of an authority that can be identify as a representation of everyday life. I chose my characters to be a museum visitor and a custodian. In the original story, the visitor would get in trouble with the custodian for taking pictures, and would leap into a surreal world of paintings trying to avoid him. Not being able to get rid of the custodian, he would be chased frantically, interacting with the painted backgrounds, until the chase would end with the custodian pushing the visitor into the river of a Monet.

There was something that bothered me about the story. When I first discussed it with Jack Slutzky he said to me: "Your anti-hero is still an anti-hero! Make him the hero by making him win. The bad guy is the winner, that's why it bothers you". He also suggested to simplify matters by not bringing a photo camera into play. It was, after all, a circumstantial prop.

For my final proposal I had the visitor touching a sculpture and jumping into a world of paintings of Latin American artists, rather than European painters of the beginning of the century. I felt happy to do research on these paintings because I could bring them closer to my heart, closer to my cultural background. All my advisors agreed that this little bit would also

make me grow fonder of my work. This time the custodian would also have a harder time jumping into the paintings. After bouncing off from the painting where the visitor had gotten into the surreal world, he would be able to get in through a hole opened by the slipping hand of the visitor, when distorting a painting from the inside, to upset him further more. But this time the chase would end up with the visitor crushing the custodian under a collapsing pile of fruit, in a still nature painting.

Later the story underwent one last change. In the production stages, when video shooting the live action, I realized I needed to bring back the camera into play. This would allow me to play better with the interaction between the visitor and the custodian. In the version where the visitor touches a sculpture and upsets the custodian, the mischief of the gag would lose its effect. The sculpture did not work as a prop because it belonged in the custodian's turf, a camera, instead could be easily related as the visitor's "weapon" for challenging the authority of the anti-hero.

The original story underwent several cuts. Jack Slutzky helped me see a point in editing out the repetition of the gags. The story was developed using fifteen paintings as backgrounds at first. In the final piece I used five paintings as references for transitions into and out of the surreal world, and as backgrounds where the action would occur. I was happy with these cuts because I understood the dynamics of the story in relation to avoiding a boring fall into the repetition of the gags.

In researching silent slapstick, my favourite was a skit performed by Charles Chaplin in *"A Dog's Life"*, where he flees a cop who is angry at him for stealing his food through a hole in a fence. The repetition of the gag works because both characters, although they move back and forth from one side of the fence to the other, move towards a resolution that concludes with Charles Chaplin getting away with his mischief.

PRE-PRODUCTION

Selecting the paintings for the backgrounds was a very enjoyable task. I browsed through books of Latin American Art to get an idea of the style I wanted, and then, once I selected the artist, I selected the painting. The development of my story was influenced by the paintings I was able to obtain; but the initial idea was not affected by this. Professor Florencia Nelson, a visiting faculty at RIT provided me with slides. She is an Argentinean as me, and we soon struck a friendship. It was wonderful to learn about Latin American Art by simply listening to her. It made me happy that I had chosen this type of backgrounds since I began to realize I needed to expand my knowledge of Latin Art as I progressed in my research. Florencia's slides were a great help to do a quality scan of the pictures. I had experimented with scanning paintings from a book but I was disappointed to see the marks of the Moiré pattern, left behind by the printing screen. Scanning from slides allowed me to obtain great resolution.

Once the backgrounds were chosen, I started doing tests with the software. Different versions of the video capturing software being developed relentlessly throughout the production of my animation, improved the rotoscoping process in the computer environment. However, it first took me a whole quarter almost to make the video software compatible with the animation software. I abandoned *MacroMind Director* as the software to handle the compiling of the animation. I was not able to import the video frames without running into memory problems. The flow of the live action needed to be moved at a ratio of 30 frames per second. *MMDirector* could not import as many different cast members without exhausting the memory capacity. Mark Collien had mention the "new" version of *Adobe Photoshop* had a rotoscoping feature. I decided to do the frame composing using the filmstrip file format that *Photoshop* offered.

Having solved the rotoscoping dilemma, I started to shoot the live action. I first worked with a series of live action scenes that were not shot against a blue screen background. The rotoscoping process was painstakingly hard. I decided to re-shoot the remainder of the scenes in a studio setup where I could take advantage of the blue screen technique. While I enjoyed the technical challenges of these phase, I must say the possibility to direct the actors that would give "*anima*" soul - to my characters gave me great joy. The responsibility of harmonizing the little group formed by the actors and the people that assisted me with the equipment fulfilled my self-set challenge to communicate what I needed as a filmmaker.

ANIMATION PRODUCTION

The story of "Click! Folie à Deux" can be divided into two parts, both in regards to technique and narration. The real world of the museum with the guard and the visitor pacing around the gallery; and the surreal world of the paintings, where the chase happens.

The video shooting of the live action taking place in the real world was done with a Sony Hi 8 camera. Quality of the images was important, since they would not undergo any kind of retouching or painting when transferred to the computer and processed through *Adobe Premiere*. The raw video footage that served as a base for the rotoscoped images of the animation of the surreal world were recorded with the same Hi 8 camera but also with a 1 1/2 inch VHS format one.

Some, but not all of the scenes that required interaction with the paintings were shot with the blue screen technique. A blue background was also used in the scenes where the painting that were used in the animation needed to be shown. A view from outside, the surreal world was needed as a visual cue for the audience to have some reference to the virtual gallery. The blue screen serves as a background to which the video camera becomes blind. Properly lit and without creases that could trap shadows, the light values of the blue screen can be removed or "chroma keyed" in the computer. The quality of the video footage becomes important. Even shades of blue are easy to remove either in *Adobe Premiere* with the "*Transparency*" feature, or with the "*Magic wand*" tool when the video is downloaded to the computer and then exported to *Adobe Photoshop* as filmstrip files. Blue and green screens work fine as backgrounds to be removed since the values for skin tones of the actors are very different to those of the screen, and therefore he computer can do a more accurate transition in the chroma key process.

This technique was not used in some of the scenes, especially the ones that required depth and the actors to run or could not be performed in a studio setting. In this case, the background of the location where the scene was recorded was painstakingly removed frame by frame in *Photoshop*. This was done using the *eraser* or any of the selection tools and then using the "*Delete*" key for large areas, and using a white *brush* in small areas.

The real world scenes needed to be recorded on video but - although they were later downloaded to the computer - they were not produced frame by frame like the surreal world scenes were. The video was "*captured*" using a *Video Spigot* board on a *Quadra 700*. This was the hardware used in the scenes rotoscoped earlier in the project. The later scenes were done using raw footage captured on a *Quadra 840 A/V*. The *Video Spigot* does a satisfactory job, but the *ScreenPlay* software does not offer *control panels* to improve the video capturing as good as the *Video Fusion* software the *A/V Quadra* does. *ScreenPlay* can control mainly the *compression* algorithms and the frame rate at which the video is being transferred into the computer. *Video Fusion* does that and much more. The quality can be enhanced through the "*Image*" sliding controls for *Brightness*, *Contrast*, *Saturation.*, *Contrast* and *Sharpness* .*Video Fusion* can also control recording preferences and decide whether the video is being recorded to disk or memory. It can also do *Post Compression* and show indicators for memory space available and time remaining.

All video capturing was done at a rate of 30 frames per second (fps). However, the rotoscoped images move at - what I call "pseudo 30 fps". The video board would capture 30 frames but they were not all different. The computer would repeat certain sequential frames. For example, rather than capturing frames 1, 2, 3; it would capture 30 frames in a second in this way: 1, 1, 2, 2, 3, 3, ... etc. The "pseudo 30 fps" illusion was created because when retouching each frame I would paint them individually, therefore the repeated frames looked different after being retouched.

The real world scenes were video captured and then opened as movie files in *Adobe Premiere*. Using the *"File/Export/Print to Video"* feature the movies were played in the computer and recorded back to the 3/4 inch video format. This was done to have a consistency of the 320 x 240 pixels window that was used for the animated, rotoscoped scenes. Printing to video from *Adobe Premiere* means that the desktop is fully replaced by a solid black background with a 320 x 240 pixels window in the center of the screen through which the video shows. Editing of these scenes was done on 3/4 inch video. Although *Premiere* has editing capabilities, the entire short was edited in video. Because of the length of the project, editing so many scenes would have demanded a huge amount of RAM and hard disk power that was not available at RIT when "Click!..." was done. This was also the reason for choosing a 320 x 240 window. The size of window was the largest available, considering hardware restrictions. Zooming-in to fill the 640 x 480 screen would result in a software enlargement of the frames, and therefore in a distorted, pixellated image. The frame rate would also be affected by this and the illusion of real time motion will no longer hold.

The animated scenes were done mainly in *Photoshop*, but the raw video that served as a backbone to the rotoscoped images were brought first into *Premiere*. Using the *"File/Import Multiple"* command these movie files were taken into the *"Project"* window as thumbnails or pointers to the original *ScreenPlay* or *VideoFusion* files. Using the *"Construction"* window, the scenes were re-sampled one by one to create *Premiere* movie files. This extra step was needed to be able to make filmstrip files to be transferred to *Photoshop*. Every scene was made into a *Premiere* movie file. Each movie file was then resampled again into smaller movies of 10 frames each. This was done having only one movie at a time in the *"Construction"* window. The yellow bar indicating the beginning and ending frames was then stretched across contiguous 10 frames segments. An easy way to control the yellow bar is to zoom-out in the *"Construction"* window to be able to see the movie in a

half-second view at least -, and then using the *"Info"* window to place the mouse cursor and indicate the portion of the movie that needs to be resampled.

The *"Info"* window displays accurately where the cursor is being positioned. 10 frames was the length chosen for these movies that were only used to create files in the filmstrip format. This many frames in a filmstrip file was the number of frames that the computer could handle without running out of memory and freezing up when retouching them in *Photoshop*. After re-sampling or "cutting" the original *Premiere* movie containing the entire scene, the 10 frame movies were made into filmstrips using the *"File/Export/Filmstrip File"* command. The original *Premiere* movie was then saved as a backup for the raw video, the 10 frame movies were discarded, and their filmstrips were kept. For documenting reasons I would name the filmstrips in sequence. The name format would always contain first the name I had given to the scene, followed by an extension that had information of the filmstrip's placement within the scene. For example, the scene where the guard awaits to surprise the museum visitor hiding behind the corner I called it *"Hush"*, because the guard asks the audience to hush when he looks at the camera. The filmstrips between the fourth and fifth second were called *Hush.41*, *Hush.42*, and *Hush.43*. The "4" means that they all started after the fourth second. The "1" means they are the first 10 frames, keeping in mind that a frame rate of 30 was used per second, the "2" means that they are the second batch of 10 frames, and the "3" means that they are the third batch. Therefore *Hush.41* were the frames from 00:00:04:00 to 00:00:04:09, *Hush.42* contained the frames from 00:00:04:10 to 00:00:04:19, and *Hush.43* contained the frames from 00:00:04:20 to 00:00:04:29. Scenes always starting at 00:00:00:00, the first filmstrip of the *Hush* series was called, *Hush.01*.. The filmstrips could then be opened in *Photoshop* as files resembling a film negative, with the frame atop of long file. 10 frames was a good working size for manageability reasons, keeping track of the filmstrip according to the whole scene context was easy, and retouching 10 frames at a time was enough; considering each frame as a single file containing a picture, the computer's performance was satisfactory. A higher

RAM, some commands would not be able to be performed as well. There are a few rules to followed when working with filmstrips in *Photoshop*. For this file format to be able to be recognized as a *Premiere* file again, the filmstrip must retain its size through out the whole rotoscoping process. This means the file has to be opened always as a filmstrip. *Photoshop* will not be able to open a filmstrip unless the *"File/Open As..."* command is used. For the file to keep its original size (approximately 3.2 MB for 10 frames) no change of resolution, *image size*, or *canvas size* can be done. An original *Premiere* filmstrip opened in *Photoshop* has the RGB composite display plus four *channels* to itself. This is a characteristic of filmstrip files. While other formats - except for single *channel* ones consist of *channels* as color separations besides *channel* zero; filmstrips will be made of the RGB channel (#0), the red (#1), the green (#2) and the blue (#3) *channels* and a fourth *channel* - simply called in the *"Channel"* window as *"#4"* unless re-named. This last *channel* contains the information for *Photoshop* to recognize the file as a filmstrip. Clicking on the fourth *channel* in the *"Channel"* window, or using the *"Select/Load Selection"* command will show the lines separating one frame from another. Saving this *selection* is useful for registration purposes. In this way you can see in *Photoshop* all four corners for each frame of what will be understood by *Premiere* as the limits of the 320 x 240 window display. This information does not change from one filmstrip to another. Replacing this information with a different *selection mask* used for retouching or editing purposes will not change the file size. It is important to keep in mind that only one *channel* (#4) can be used for *selections* when using the *"Select/Save Selection"* command that creates a new *channel* unless the existing one is overwritten. The original *selection* in *channel* 4 or any other *selection* needed to be saved in the rotoscoping process can be saved in single-channel files other than the filmstrip. However, if file size is changed unintentionally, a way to return to filmstrip format is to use the *"Select/All"* command, then the *"Edit/Copy"* command and

pasting this information in an original filmstrip of the same size. A new empty one - using a solid background -, created in *Premiere* for transition purposes could be used. To save time - rather than creating one in *Premiere* I would open in *Photoshop* any of the filmstrips in the same series, re-name it using the *"File/Save As..."*, command and then emptying it by selecting all and deleting its contents. In this way I could use the filmstrip being retouched as a *TIFF* file with all its necessary *selections* within its *channels*.

Rotoscoping using *Photoshop* and *Premiere* is different from the traditional rotoscoping technique since the tools available in the computer are emulating art tools. Both mediums will use video footage as a base to create animation. The way the final frame composite is created is the breaking point. In the digital process, a retouching and re-assembly technique of what you get from video is used. In orthodox rotoscoping, however, a traced image from the live action footage is used to compose a frame from scratch. Using a computer environment, presents several advantages. Storage is easy; the files do not take a lot of physical space; their quality is not exposed to creases, dust, liquid spilling, finger prints, light decoloration, and other hazards that non-digital art is exposed to; obtaining backup copies to safe guard every step of the process takes just a mouse click; the art in itself can be saved along every phase of the editing for documentation purposes; registration of every piece composing a frame can be measured exactly down to pixel; color and light values (*Levels, Curves, Hue, Saturation, Brightness,* and *Contrast*) can be saved to maintain continuity throughout the scenes; some retouching can be applied at once to several frames; styles can be previewed and undesired effects can be undone to return to the previous editing step. Through the animated scenes and after - what I call many "flying hours logged" all retouching capabilities in *Photoshop* were used. Rather than 10 frames at time, editing was done using *Photoshop* commands. In few scenes a painting effect using combinations of *filters* was used. *Gallery effects, Xaos Tools and Kai Power Tools* were useful, but I must say it would be naive to expect that just applying these *filters* would create magic. *KPT* and *Xaos Tools* demand a lot of investing in "testing"

time. Satisfactory results do not come easy. Adjustment of the values that control these *plug-ins* must be done time after time to come up with an effect that fits the characteristics of the art work being manipulated. Detail, resolution, light, and color change throughout the scenes, and there is no magical recipe to be followed. In the same way an excellent camera does not guarantee its user to be an excellent photographer, these *plug-ins* are like their name describes them, just tools. The user must master first their controls and this means to have a dissecting understanding of *Photoshop* 's retouching capabilities and the photographic principles the software follows. The quick, mouse click-speed results expected from these filters *plug-ins* is based in applying a bundle of commands at a time and seeing a preview after all of them, rather than after each of them, as it is done in a slower, step by step process.

I will describe in a more detailed fashion how six scenes of the animation were done. I chose them to be scenes that represent the rotoscoping retouching and frame composing process throughout the animation in the short.

Scene name: *"Miniature run - Esquina"*

Painting reference: *"Esquina"* (Street corner) by Victor Cúnsolo

Action: Museum visitor runs down the street not knowing that the guard awaits for him hiding behind the street corner.

I chose to describe this scene because of the perspective and registration decisions I had to take. I needed the museum visitor to run down the street in the *"Esquina"* painting. The view angle of the painting is slightly tilted up. The two streets that define the corner converge towards the bottom center of the painting. The camera angle from the video footage was taken trying to obtain the same perspective as in the painting, but since it was recorded in a virtual setting some adjustments were necessary. The actor run downwards on an incline at the right angle towards the camera. The problem that had to be

resolved digitally was the perspective. In the video footage the run was done in a shorter distance and the actor's height would become larger as he approached the camera. In the painting though, the visitor's height needed to remain constant and slightly smaller as he approached the corner.

Since reducing the height and width parameters of the movie being made in *Premiere* to "shrink" the actor as he approached the camera would also reduce the frame of the movie window, the perspective problem had to be solved before registering the actor against the painting background. The run scene was 2:09 seconds long. Therefore filmstrips 0-1, 0-2, 0-3, 1-1, 1-3, 1-3, and 2-1 were created. After experimenting with different movie parameters this was the final width and height given in pixels to the filmstrips:

0-1 =160 x 120

0-2 = 140 x 105

0-3 = 120 x 90

1-1 = 120 x 90

1-2 = 100 x 75

1-3 = 80 x 60

2-1 = 60 x 45

All these filmstrips had in common the same width and height 320 x 240 ratio of the destination window for the final frame composite. Filmstrips 0-2 to 1-2 were pasted within a 160 x 120 window so that the frames in all the filmstrips when overlapped would be concentric, bearing the same registration point in the center of the window. This scene, because of the perspective problem to be solved, was the only one I had to use a registration point in the center of the window. For the final

frame composite with the guard and the *"Esquina"* background, the registration used was the top left corner of the 320 x 240 window. Probably because I read from left to right, and from top to bottom, the top left corner was also the registration point of choice to overlap the different pieces of the final composite, when overlapping them against the filmstrip containing the same background throughout the frames.

To be able to paste the frames of the different size filmstrips within a 160 x 120 filmstrips, I *imported* filmstrips 0-2 to 1-2 into *Premiere* and exported every frame of them as a *PICT* file. I then created an empty 160 x 120 filmstrip with a white background and reproduced it six times to be able to put the frames of filmstrips 0-2 to 1-2 back into filmstrip file format. In *Photoshop* I opened one of the blank 160 x 120 filmstrips and 10 sequential frames - with the live action for the run at a time. Using the *"Magic Wand"* I selected the whole frame. To make sure that all 160 x 120 pixels had been selected, I had the *"Info"* window opened. I would then go to one of the *PICT*s, select it all, copy it, and paste it in the frame selected in the empty filmstrip. Selecting an area of the filmstrip - which is nothing else but a long file - forces *Photoshop* to paste what is in the buffer within that area. This is a useful trick to control where the paste up will appear, since the filmstrip cannot be contained in the screen at a 1:1 zoom-in ratio, and therefore a paste up can appear at an unseen area. In this case - because the 160 x 120 frame and the *PICT*s had the same width and length ratio - when pasting the *PICT* into the frame, *Photoshop* would do it concentricly.

Once all the live action was contained in 160 x 120 filmstrips, I chose a 160 x 120 window in the painting to use as background for the run. This intermediate step had to be done for two reasons. Since the background of the final composite was 320 x 240 pixels, the top left corner registration point would not match the one in the 160 x 120 filmstrips. Also, the portion of the painting needed as background for the run did not fit within a 160 x 120 window that was concentric to the 320 x 240 window. Restraining the *Marquee* size to 160 x 120 I clicked once on the whole background. I then moved the selection

made by the *Marquee* using the keyboard arrows, while holding down the *"Command"* and *"Option"* keys, to bound what I chose. With this background I did a probe pasting at a 40% opacity the first and last frame of the live action. In this way I could see I had chosen the correct registration point if the top left corners of the background *PICT* and the action *PICT*s were lined up. In *Premiere* I made a 10 frame filmstrip with the background *PICT*. All I had to do for the live action to show on the 160 x 120 background was a simple pasting. I duplicated the background filmstrips for each live action filmstrip (0-1 to 1-2), then I opened one of each in *Photoshop*. I did *"Select/All"* in the action filmstrip, copied it, selected all the background filmstrip for *Photoshop* to match the edges when pasting, used the *"Paste"* command, and then removed the (white) background of the *floating selection* made by the live action filmstrip being pasted, by using the *"Magic Wand"* and holding down the *"Command"* key. It is important that the *tolerance* of the *"Magic Wand"* is set to a lower value than 32 and the anti-aliased option is clicked. Otherwise the (white) background being removed from the *floating selection* just pasted will suffer extra "biting" from its edges. Setting a low tolerance makes the *"Magic Wand"* blind to areas of similar values within the edges of the character of the live action. Using the *"Select/None"* command would "drop" the *floating selection* and would fuse the live action against the background. into a single-layer bitmap.

I now had 160 x 120 filmstrips containing the live action and part of the 320 x 240 background. This background could not be pasted as I said before in registration with 320 x 240 background by using the top left corner or the midpoint as references. For this reason. When I had done a selection on the 320 x 240 background using the 160 x 120 restriction in the *"Marquee"* dialog window, after copying the selection and pasting it into a new empty file to create the *PICT* for every frame of the filmstrip, I also returned to the 320 x 240 *PICT* and with the selection still on I hit the *"Delete"* key. This made a 160 x 120 "hole" in the full background. I used this *PICT* as the base to create a new 320 x 240 background filmstrip in *Premiere*. While in *Premiere* I also open all the 160 x 120 filmstrips and exported every frame into *PICT* format. Back in *Photoshop* I

pasted them one by one into the duplicate filmstrips of the one with the "hole" in the background. I used the *"Magic Wand"* to select this "deleted" area, and made sure I had selected all 160 x 120 pixels by using the *"Info"* window.

Scene Name: *"Visitor's run"*

Painting Reference: *"Esquina"* (street corner) by Victor Cúnsolo

Action: Museum visitor runs in *"Esquina"*

This scene had no painting as background. As in the other scene of this type, I did this to give the illusion of having the characters move in a virtual 3-D world that will only show the backgrounds if the point of view of the live action and the painting were the same. (The other scene where this happens is the one showing the guard snapping his fingers after not being able to catch the visitor, bouncing against him. The guard can be seen from a view placing the camera within the painting, facing the audience.) In these two scenes I chose the characters to have a neutral background.

After removing the video background and keeping just the visitor I altered the *curves* in the blue *channel* to give the images a blue shade. Enhancing the blue tint was not the only result of changing the *curves*. I selected a *curve* that would also show the contrast that the creases in the actor's clothes would show shadows. This improved the quality of the image by giving it texture. Video tends to have a flat look. Using the *"Image/Adjust/Color Balance"* command I set the midtones values to (-70,30,40), to increase the green, cyan, and blue tonalities. Using the *"Select/Load Selection"* command to bring up the information in *channel* 4 and then hitting the *"Delete"* key would erase the lines defining the filmstrip between each frame. "Rubber banding" the frame numbers to the left and right with the *"Marquee"* tool was an easy way to remove them. I then selected the whole filmstrip, clicked with the *"Magic Wand"* on the white background while holding down the *"Command"* key

to subtract it from the selection. This left only the areas containing the character in the selection. Still holding the *"Command"* key I subtracted the face and hands areas with the *"Lasso"*. I added *noise* at a rate of 32 on the RGB *channel* and then applied a *"Crystallize"* filter with a cell size of 3. I saved the selection on *channel* 4 and then selected all the filmstrip. I opened the *"Image/Adjust/Curves"* dialog window and loaded the original blue *curve*. I loaded the *selection* on *channel* 4 and did an *Inverse* selection to obtain the background and the face and hands of the character only. I subtracted the white areas with the *"Command"* key and the *"Magic Wand"* and opened the *"Image/Adjust/Hue/Saturation"* dialog window clicking in the *"Colorize"* box I adjusted the saturation to (+ 80). This gave them a reddish tint. I then applied a *"Motion Blur"* filter of 1 pixel distance and at an angle of 20°. I re-applied the filters with the same parameters to the whole selection, to "blend" the rest of the picture into a similar texture.

Scene Name: *"Bumping at the corner"* (Scene was not used in the final cut, the guard had a jacket on, when he had taken it off in a previous one, so I had to re-shoot it and re-rotoscope it)

Painting Reference: *"Esquina"* (street corner) by Victor Cúnsolo

Action: Trying to escape from the guard the visitor bumps into him at the end of the street.

In this scene the perspective was right and I just had to select a background from the painting and enlarge it. I copied the *selection* and pasted it in a new file. To enlarge it I used the *"Image Size"* command and with the *"Proportions"* box checked, I gave it a width of 320 pixels. To avoid pixellation or pixel stretching, I clicked on the *"Auto"* button and selected the *"Best"* quality required from the resolution menu. I cropped the final image to a 320 x 240 pixel *PICT* and made a filmstrip with it.

In *Photoshop* I removed the background from the original live action, leaving the figures of the guard and the museum visitor on a white background. Using the *"Image/Calculate/Duplicate"* command, I would create an extra filmstrip every time because it made it easy to retouch each actor separately. I deleted the guard from one copy of the filmstrip, and the visitor from the other. I colored and painted the visitor using *curves* I had saved from other scenes, and retouched the guard in sepia tones. To get a sepia tonality the *Duotones*, *Tritones*, or *Quadtones* dialog windows can be used. But I found it easier to work with the *"Hue/Saturation"* adjustment. Clicking the *"Colorize"* box and giving it a hue of (+30) and a saturation of (+40) tinted the image with a rich sepia color.

For the final composite, since all filmstrips were of the same size, I just pasted the characters one at a time against the background and removed the white background with the *"Magic Wand"*.

Scene Name: *Visitor Pushing Bowl.*

Painting Reference: *"Monument"* (Fruit Bowl) by Julio Larraz

Action: Visitor pushes the bowl to drop piled-up fruit on guard.

This is the longest animated scene in the short. It is 10 seconds long. No cuts interrupt the action and the introduction to it. The museum visitor looks up after discovering the fruit in the bowl piled-up high. After mischievous thoughts he looks at the audience as if they where his accomplice, and then the action in the scene starts. Another feature of this scene is the interaction of the live action character with the surreal painted background.

The 300 frames of the scene (30 filmstrips for each: the background, the bowl, and the museum visitor) took an hour to be compiled in *Premiere* when making the final movie. Using *"Cinepak"* compression - the same compression for all the final movies compilation throughout the short -, it took two minutes to render each filmstrip.

A 320 x 240 pixel *PICT* from the original painting of *"Monument"* was used for the scene's background. I "removed" the bowl using the *"Lasso"* to select the bowl. To this selection I added with the *"Marquee"* tool - while holding down the *"Shift"* key - the top left corner from the 320 x 240 window. I copied the selection and pasted in a new file. With the bowl selection still active I saved the selection. In the background file I subtracted the portion of the left corner from the selection with the "*Marquee"* while holding down the *"Command"* key. The only selection left was the one of the bowl. I deleted it and a white outline for the bowl was left on one of the background. Using as reference several frames throughout the live action (already retouched and on a white background), I painted a registration mark on the background without the bowl. To do this, I exported some *PICTS* from the live action filmstrips from *Premiere*. The live action filmstrips were smaller than 320 x 240 so that the character would fit in the final composite with the bowl. When probing the PICTS against the background I lined them up so that the actor looked like he was pushing the outline of the bowl. When doing this I would always mark on the background *PICT* where the top left corner was being pasted.. I used this mark as a registration point. Once I did this I retouched the empty white areas that the bowl left behind. For this I used the *cloning "Stamp"*, the *"Blur"*, the *"Smudge"*, and the *"Eye-drop"* tools.

I first pasted the retouched live action for the character is animation. I made a movie with the character against the background without the fruit bowl to test the motion. I then pasted the bowl into these new filmstrips for the final frame composite. To do this I went back to the file with just the bowl and the top left corner. I used the *"Load Selection"* command so I could use the same outline I had cut the bowl from, and copied it into the buffer. On every frame of the bowl animation I

would paste it aligning the top left corner against the top left corner of the composite's frame, subtract this portion with the *"Marquee"* and the *"Command"* key, and used the *"Select/Defringe"* command for the bowl with a value of 1. I did this to remove the white "fringe" pixels surrounding the *selection* border. This is a drawback from the *copy* and *paste* commands. The *"Defringe"* command replaces the color of any "fringe" pixels with the colors of nearby pixels that contain pure colors in the *selection*. The pixels with pure colors are the pixels that do not contain any of the background colors. in the *selection*. The image then "bleeds" into the outline, and the picture being pasted fuses better with the new background. Throughout the pasting process in the animation I would retouch the edges using the "defringe and blur" technique when needed. Outlined or sharp edges seemed too fake when pasting the characters against the background. The *"Defringe"* command takes care of the outlined edges. To soften the sharp edges I would use the *"Select/Border"* command before "dropping" the active selection and create a border of 2 pixels around it. I would apply a *"Blur"* filter to this selection and then de-select the character to fuse it with the background into a single-layer bitmap.

For the bowl to move and give the idea that the visitor was pushing it, I used the *"Image/Effects/Rotate"* command and the arrows on the keyboard while following an animation script.

The hardest thing about this scene was to make the character interact with the background and to control the motion throughout 300 frames. I did several test breaking the scene into four segments to achieve the animation a few frames at a time. Small corrections throughout the process were necessary before advancing to the last frames.

Name of Scene: *"Guard Into Monument"*

Painting Reference: *"Monument"* by Julio Larraz

Action: Guard enters the monument setting chasing the visitor and realizes the fruit is about to fall on him.

The retouching and frame composing in this scene was done in a regular fashion. Because the action in this scene happened in a spot of the painting that had a lot of shadows and contrast, I was able to give the guard a shadow projecting in the same direction as the houses surrounding the fruit bowl. This gave the scene more dimension. The shadow made the character look like it belonged originally in the background, and pasting the live action against a flat *PICT* seemed more realistic. Pasting a shadow, meant pasting the guard twice. Due to the character and his shadow having different pasting values in the *"Pasting Composite"* window, I pasted first the guard and then his shadow. To create the shadow I used the one that the actor projected in the video footage. I created duplicates of the live action filmstrips, and after deleting the shadow from one and the character from the other, I retouched them separately. While the guard was pasted against the background 10 frames at a time, his shadow, instead, was pasted frame by frame. I did this because the shadow had to be retouched accordingly to look realistic. After being rotated at the correct angle to match the other shadows in the painting, the original shadow in the video underwent some distortion. When pasting the shadow I used an opacity of 70% and a *"Multiply"* mode, to make it look transparent.

Name of Scene: *"Fruits Fall on Guard"*

Painting Reference: *"Monument"* by Julio Larraz

Action: The museum visitor hides behind the bowl and observes the fruits fall on top of the guard.

In this scene not only the characters move but also the falling fruits are animated. Each moving part was pasted against the background one at a time. First the fruits were "removed" from the bowl. In this way the background use was fixed. When "cutting" the fruits out of the painting, a portion of the top left corner was also copied to use it as a registration mark. The guard was the first character to be placed against a half-full fruit bowl. Then the bananas, then the grapes, then the pear, then the apple, and lastly, the visitor. The fruit animation was done frame by frame using the top left corner as reference first, and then moved downwards with the keyboard's arrows and the *"Rotate"* command. The grapes however, were the only fruit animated backwards. To create a better illusion of the grapes cascading downwards, I created the last frame first. I painted the grapes falling at their last point in the last frame of the scene. Then I copied them and pasted them in the preceding frames subtracting grapes from the *selection* each time, until I reached the original position where the grapes were in the first frame of the scene.

POST-PRODUCTION

I typed the credits in *Photoshop* and created the different screens on a full frame black background. I later downloaded them to Beta SP video tape.

I did run into some problems when I needed to download the digital scenes from the computer into video format. I had to find a place where I could have access that had both, a computer with A/V capabilities, and a quality recording deck. The Educational Technological Center at The Wallace Memorial Library at RIT, my place of work, provided me with the equipment needed. I am very grateful to them for letting me use the Beta SP deck.

Once downloaded to a Beta SP video tape, I edited the animation and then added the soundtrack to it. The original soundtrack was created by Christopher Burley and Steve Hornos - filmscorers and professional digital musicians. After long hours of meeting with them for two weeks they finished the original soundtrack. Of all the work I did to create "Click! ...", communicating with others what nuances I wanted from scene to scene, prooved to be the hardest to do. Like when directing the actors in front of the camera to obtain the live action for the rotoscoping, transmitting the musicians what kind of music I wanted left my scope of control, and instead I had to trust my communication and directing skills. Chris and Steve use a sequencing software (Cakewalk Professional) as a composing tool for scoring the different tracks. They used synthesizers (Yamaha SY-55, Korg-M1, Roland D5, Oberheim Matrix 1000) a drum machine (Roland R70 Rhythm composer) and various multieffects processors. After the soundtrack was ready, we recorded it to a Digital Audio Tape (DAT). Evan Cohen - Film and Video undergrad, the "Magic Man" as many of us call him - mixed the music, the voices and the sound effects (like the camera's reflex mirrors clicking and the scratching vinyl record in the background) on a 1/2 inch 8 track tape at the Recording

Studio of the F/V Cage on the 4th floor. After the mixing was done, all 8 tracks were downloaded to 3/4 inch video tape, which was later syncronized with the images on an S-VHS dub from the Beta SP original.

When the time came to add a soundtrack and sound effects to the animation I was very concerned at first. I had only had one previous experience laying down music to an edited piece and I recalled the efforts to synchronize the visuals with the sounds. I had used a cassette tape before and I could not control the encoding as much as I wanted. This time I was determined to take advantage of digital technology to be able to script precisely where the cues needed to be put.

CONCLUSIONS

While my hands injury was my most troubling problem encountered during the production of my thesis, this was not the only one. I could also refer to my responsibilities to be a working student and the different adjustments my thesis went through due to change of software and hardware.

During the last two months of my thesis work, I did not hold a job. This allowed me to work on my short at full speed. It also helped me to concentrate on the continuity of the process, to speed up the tasks required, and to gain creativity.

Doing video capturing took me almost a full quarter to research the best way to simulate real time motion in the computer. When I decided not to use *MacroMind Director* 3.1 as the software to handle the animation, I started doing tests to use *Adobe Premiere* and *Photoshop*. This was done at a time when video capturing was at its earlier stages at the level of computers I had available. As my thesis progressed, the software and hardware available in the market improved the method and quality to record and play video in a Macintosh computer. Compatibility between the new *Quicktime* and *Premiere* version did not come easy at first, but after doing research and tests, I could use both software in synch.

The work that came afterwards was hard and demanded a lot of concentration, but I cannot recall a moment when I would become bored with it. I had fun solving the technical problems and enjoyed the creative aspects of frame composing. I was gladly surprised to find joy in producing the video footage. Directing meant to me a challenge to stop hiding behind a computer desk and to reach out to people and communicate.. Towards the end of the whole process I worked long hours and would become simply exhausted. However, I counted my blessings everyday for choosing a career in the communication arts.

My thesis work presented me with many challenges, but taught me more than aesthetics lessons, I was pleased with the insight gained.

THE SUMMER OF THE GOLDEN APPLES

Carpal Tunnel Syndrome Prevention Tips

During June 1992, I started feeling pain in my right hand when retouching the live action frames. Not understanding why I was feeling discomfort, and since I've always been ambidextrous, I started retouching the live action footage with my left hand. The pain in my right hand would not cease and by the second week since all this started, both hands would shut in a tight fist, for intervals lasting from five to thirty minutes. My hands would close up and open beyond my control. The first time this occurred I woke up at about 3:00 a.m. one mid-June night. I remember I thought I was dreaming, but the pain got sharper, my muscles got very taut. I even laid all my weight on them when they opened to try to keep stretched. But no matter what I did the muscles would cramp up in a fist back again. My fingers would twitch and I couldn't control my hands anymore. I started realizing how swollen my hands got. I had talked to Dr. Zinaman at the school's Health Center trying to prevent what I thought were the early signs of Carpal Tunnel Syndrome (CTS). He gave me some tips, but it was too late, I was diagnosed with CTS and Tendonitis in both hands on July 1, 1992. I did therapy with Dr. Zinaman for almost one year, until May 1993. I also attended the Hand Rehabilitation Clinic at Strong Memorial Hospital under the supervision of Ms. Ida Cole. Some nerve damage was assessed before I started my rehabilitating routine; first twice a week, then only once a week. I would do exercises to put strength in my hands, and my progress would be measured with some very interesting medical gadgets. Both my hands had gotten very weak after wearing braces that would lock my wrists in a neutral position. I would wear at all times, even when sleeping. In this way, my hands could not bend in any direction, allowing the carpal bridge to remain straight. This allowed the nerve to pass through the area of the carpal bones without being choked. This is a "neutral"

position. When bending the hands at the wrist, the median nerve suffers compression if the area is swollen. Every chore that required to use my hands would be very painful for me to do. Specially the ones that required more than one task, like opening a door by twisting the knob and then pulling it. I had trouble trying to eat with silverware so - being a vegetarian I would only eat raw vegetables and fruits with my hands. My favorite "meal" were washed, unpeeled Golden apples. I would only use plastic cups to drink because I would let go the glass sometimes, without realizing when I was about to drop it. I could realize the brain-hand connection would follow a "broken path" through my nerves. The timing for my reactions and my depth perception was affected. I could not synchronize my hands with my thinking. This was very annoying and frustrating. I would do things very slowly and I would breathe deeply throughout any chore. When I was first diagnosed I felt very angry, I hated my hands for "betraying" me. Dr. Zinaman helped me understand that this attitude could only get in my way to recovery. Understanding the human body in a holistic fashion, he would tell me to "talk" to my hands in a compassionate way and to take care of my health as a whole. My hands followed no logic: after two and a half months of intense treatment, I saw no improvement. This was very discouraging, and my mind would struggle not to harbor negative feelings. Since this was a nerve injury, any reaction I would have would be reflected in my hands. I decided to fight this with all my strength, and I thought the best thing I could do was to find out about CTS as much as possible. I attended workshops and seminars at the Rochester Arthritis Foundation and at NTID (the National Technical Institute for the Deaf at RIT), since interpreters learn how to prevent CTS. I would also read any piece of information I could get in books or magazines. My favorite book was "Self Healing - Use your mind to heal your body", by Louis Proto. After nine months of treatment I started to remember how it felt to be healthy again. I had forgotten how it felt. Throughout the last stages of my therapy, I "jumped the gun" three times, anticipating recovery. How soon we forget! I would stop taking my medicine and my B vitamin, or slack in the exercising routine. In May 1993 I went back to work on my thesis. In February 1994, trying to avoid the Spring Quarter rush hours a the

computer lab, I started working on my thesis from 7 PM to 4 AM. I would get up at 7 AM to go to work, and I was supposed to nap from 2 PM to 5 PM; but most times I would not do it. I started loosing my appetite. Anybody that lacks sleep or nourishment would simply become sluggish before collapsing. However, after a month and a half, my hands resented this routine before the rest of my system did. My right hand started cramping up again. I was reminded by my body that CTS is a permanent injury that does not go away completely, rather, it remains latent, and flares up when you do not take care of your health. After three months of acupressure therapy with Dr. Zinaman; and a two month hiatus, during which I return to Argentina to see my family; I resumed work on my thesis. My hands are fine now. They will remain in this condition as long as I follow the prevention tips to avoid a reoccurrence of CTS.

These are a few tips for healthier computing:

__ Always get rest and proper nutrition, of all tips, I have found out that procrastinating on my meals and postponing my sleeping hours have made me feel sluggish and my hands are the first ones to notice it.

__ Keep you keyboard low and your wrists in a neutral position, parallel to the floor when typing or using the mouse.

__ The top of your screen should be at eye level. The position of your head affects your neck. Neck pain as well as shoulder pain is related to CTS.

__ Adjust you chair to fit your height. Your feet should be flat on the floor.

__ Full back support is helpful. Sitting up and straight is more comfortable.

__ Get into the habit of stretching and getting away from your computer every hour. Stand up and walk, relax your neck, shoulders and back muscles, stretch and do small rotation of your hands, drink water.

__ Practice warming up your hands by doing soothing exercises. Another way to warm them up is to run warm water over your wrist area. However, while this is therapeutic, this is not as effective as exercising your hands,. Since the heat from the water is external, its effect goes away more rapidly.

__ Take care of your immune system. The vitamins in the B complex help nerves to prevent fringing that induces irritation. Since vitamin B6 is a diuretic, it reduces the edema (excessive fluid retention) associated with CTS. To avoid loss of nutrients as a side effect of the this diuretic, you may need to add magnesium and potassium supplements when taking B6. Bananas - a natural source of potassium - are very good to prevent cramped muscles.

__ See a doctor to diagnose the true cause for your pain, and follow his or her instructions carefully.

While surgery is considered the primary treatment among most conventional physicians, I did not want to go under the knife. I chose a slower, natural way of healing because I was not satisfied with the statistics of post-surgery results. In the Hand Rehabilitation clinic I saw patients that had had surgery with the same doctor and at the same hospital, but they were having different recovery results. CTS has very elusive symptoms, that change from one patient to the other, which makes it hard to pinpoint its causes. While doing treatment I would always avoid my therapy peers that resented the injury and had only bitter thoughts, planning lawsuits to the company for which they were working when they got CTS. Focusing on anything else than the therapy can only distract you from your goals towards recovering. An engaging attitude to defeat pain and the injury is required. There is no use in going back to old habits that might be the cause for CTS. Knowing that my injury was mainly caused by holding down the mouse button while painting, I found another way to retouch the frames of my animation. After trying several devices as a foot pedal, I now use a trackball so that I could click and drag by using my feet. Two tasks (guiding the mouse accurately and holding the click) were too much for my hand to perform. Disassociating the

two of them has helped. I also use my right foot to click, and my left foot to double click, by programming the left button of the trackball. In the same way one shouldn't expect magic from the doctor, the therapist or medicine; a quick solution from the so call ergonomic products in the market shouldn't be expected. It took me several months to find equipment that would fit my requirements to do healthier computing.

SUGGESTED READING

About Adobe Photoshop and Adobe Premiere:

Dayton and Davis: *The Photoshop WOW! Book* Peachpit Press, Inc.; 1993

Luanne Seymour Cohen, Russell Brown, Tanya Wendling: *Professional Studio Techniques. Design Essentials.* Adobe Press. Moutain View, California 1992.

Luanne Seymour Cohen, Russell Brown, Tanya Wendling: *Professional Studio Techniques. Imagimg Essentials.* Adobe Press. Moutain View, California 1993.

About Carpal Tunnel Syndrome:

Branscum, Deborah: *Tips for Healthier Computing* Macworld, February 1993

Brewer, Jennifer: *Who Gets Carpal Tunnel?* Mademoiselle, September 1992

Challem, Jack: *Cure Carpal Tunnel Without Surgery* Natural Health, July-August 1993

Herbert, PT Lauren: *Living with Cumulative Trauma Disorder*

Booklet for the Hand Rehabilitation Clinic at Strong Memorial Hospital, 1990

Huang, Nellie: *Hidden Stress in the Office* Mademoiselle, September 1992

McKenna, Yasuda and other contributors: *Carpal Tunnel Syndrome Booklet*

SUGGESTED READING (Continued):

Arthritis Foundation, 1991

NTID: *Repetitive Motion Injury / Cumulative Trauma Disorder Seminar Notes* December 1993

Proto, Louis: Self Healing - Use Your Mind to Heal Your Body

Samuel Weiser, Inc.; 1991

Shapiro, Ezra: *Carpal Knowledge* InfoWorldDirect, February 1993

Sorensen, Jo: *Hands Off!* Via Fedex, Spring 1994

Thomson, Bill: *Pioneer of Carpal Tunnel Surgery Predicts B6 Therapy*

Natural Health, July-August 1993

About Black and White Movies:

Before Hollywood. Turn-of-the-century Film from American Archives

The American Federation of the Arts 1986

Lahue, Kalton: *"Kops and custards, the legend of Keystone Films"*

University of Oklahoma Press, 1968

MOVIES RESEARCHED

Chaplin, Charles: *"Shoulder Arms"; "The Pilgrim"; "A Dog's Life"*

Marx Bros.: *"A Day at the Circus"*

Letters

Rochester, October 12, 1992

Prof. Jeff Weiss
Chair, MFA Photography
Rochester Institute of Technology

Mr. Weiss,

On September 9th I returned the full time equivalency form you signed on my behalf to Dean Giopulos. At the request of the Graduate Studies Office I am sending you this letter to leave a written statement in my records describing my reasons for not registering for Continuation of Thesis credit.

Tendonitis and Carpal Tunnel Syndrome (CTS) - a compression of the median nerve where it passes under the wrist ligaments - were conditions I developed in both hands due to overuse of the computer while doing my thesis work. These two disorders are part of a group also known as repetitive strain injuries. My medical records state that I first attended the RIT Health Center on July 1st, 1992. Since then I have been undergoing treatment with Dr. Martin Zinaman, and since September 16th I have also joined the Hand Rehabilitation Program at Strong Memorial Hospital. Enclosed with this letter I am also sending a note from Dr. Zinaman.

As my hands grow healthier and stronger, and always following my doctor's advice, I am positive I will be able to carry on with my intention to continue my thesis work to finish my MFA degree.

Sincerely,

A. Silvina Sosa-Manrique

cc Professors Battaglia, Collien, Kurtz, and Slutzky
Dr. Giopulos, Dean of Graduate Studies
Barbara Letvin, Director of International Students

May 19, 1994

Elaine O'Neil
Director
School of Photographic Arts and Sciences

Due to my departure for the academic year 1994-1995, I will not be able to continue as an advisor on Silvina Sosa-Manrique's Thesis Board.

I am writing this letter on Silvina's behalf to let the department know that I will not be here for my sabbatical year, which I will be taking at the Universidad de Guadalajara, Mexico, under a Fulbright Scholarship.

Jack Slutzky (Head Advisor), Steve Kurtz and Mark Collien conform the rest of her Thesis Board.

In my absence, and acting as an unofficial advisor, we have made arrangements for Silvina to keep in touch and show me her final product via air correspondence in Mexico.

Sincerely,

_____

Professor Skip Battaglia
Film & Video Department

Betsy Murkett
Gallery Director
Bevier Gallery at R.I.T.

Miss Murkett,

Please consider my petition to do a video shooting at your Gallery. I am a graduate student in the Computer Animation Department and I'm currently working on my Master's degree.

The animated short that will be part of the requirements to complete my thesis is a story about an art gallery visitor. I will need to do a few scenes at an art gallery setting. My scenes do not require to focus on the art being displayed at the gallery since the art work being shown in the short is my thesis own animation. I need, rather, to focus on the locale, the setting.

The action in the scenes that I would need to record, show a museum visitor pacing around the gallery and a custodian watching him. I do not need the actors to come up close to the art being displayed. My crew consists simply of myself and an assistant. We will be using a video camera as our single equipment since the lights in the gallery should suffice.

Thank you for considering my proposal.

Sincerely,

Silvina Manrique
Computer Animation MFA candidate

Professor Jack Slutzky
Thesis Advisor

Appendices

Thesis

My thesis will be a computer animated short movie three to five minutes long. My intent is to study the characters of the hero and his antagonist. The narrative structure resembles that of many silent movies. Tying together scenes that show Modern Art paintings, the film will climax in a chase, characteristic of both comic and dramatic films of the black and white era. (*Setting*)

The story takes place in a museum, where a museum visitor - attracted by the smooth lines of a sculpture feels compelled to touch it, unaware that the museum guard is watching him. Insisting in exploring the sculpture, even after realizing he is being observed, he begins a flight through the room, trying to escape an impatient guard and finding shelter in the paintings themselves.

The roles of good and bad interchange. The authority of the guard is ridiculed, while a sympathetic side is taken on behalf of the visitor - who is presented as the hero even though he is the wrong-doer. My interest in the story is based in the fact that most everyone can identify with going through a similar situation, and that the Modern Art world will present me with the key to introduce the viewer to a fictitious setup. (*Storyline*)

Proposal

I will create this imaginary world by using Macintosh software. More specifically, I will use Adobe Photoshop to manipulate slides for the paintings and rotoscoped images; and MacroMind Director* to handle the animation. My intention is to achieve the illusion of what I call $2^{1/2}$ D, fusing flat images with retouched live-action that would add a 3D perspective. (*Rendition*)

*Note: Through out the development of the movie, for technical reasons, I chose Adobe Premiere to do the animation.

Art Bibliography

Painting 1
Emilio Pettoruti
Argentine painter
Sol Argentino
1947. Oil on canvas. 98 x 67 cm.
Museo de Bellas Artes, Buenos Aires, Argentina

Painting 2
Omar Rayo
Colombian painter
Zedereza
1968. Acrylic on canvas. 102 x 102 cm.
Private collection in Bogotá, Colombia

Painting 3
Victor Juan Cúnsolo
Argentine painter
Esquina de La Boca
1930. Oil on board. 70 x 80 cm.
Museo de Bellas Artes, Buenos Aires, Argentina

Painting 4
Julio Larraz
Venezuelan painter
Monument
1985. Oil on canvas. $82^{3/4}$ x $60^{1/2}$ cm. T+L Blanco
Caracas, Venezuela

Painting 5
Humberto Calzada
A World Within Number 14

Timeline

February 1992

Art images to be used researched
Thesis Proposal signed
Final slides selected
Final storyboard drawn
Video "*shoot*" planned, being based on the final storyboard

March April May 1992

Session with actors to rehearse action
Equipment tested
Slides for painted backgrounds are scanned into the computer
Live action recording
Video "shoot" wrap up

June 1992

Digitizing of live action tried in MacroMind Director
MacroMind having memory problems when importing rotoscoped frames

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July 1992 April 1993

Carpal Tunnel Hiatus

April 1993

MacroMind Director abandoned as the software to handle the compiling of the animation
Tests on Adobe Premiere started
Compatibility between Premiere and Photoshop tested. Compression problems are solved

June 1993 February 1994

Images from live action footage manipulated and retouched in Adobe Photoshop
Composites made compiling backgrounds and rotoscoped live action

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February 1994 - August 1994

Wrist pain flaring up. Vacation break in Argentina
(Visited the Museo de Bellas Artes in Buenos Aires and saw
"Sol Argentino" and "Esquina de La Boca")

August 1994 - December 1994

Composites for remaining animated scenes done
Re - shooting of some video scenes with blue screen technique
Compilation of video footage in Adobe Premiere
Downloading from computer to 3/4 inch video format. Editing
Meeting the full board of advisors for a silent preview
Music and sound effects added to the final cut
Written Thesis edited based on the log kept through out the production
Final cut is presented to full board for signing

January 1995

Thesis presentation

Software & Hardware
and Budget Considerations

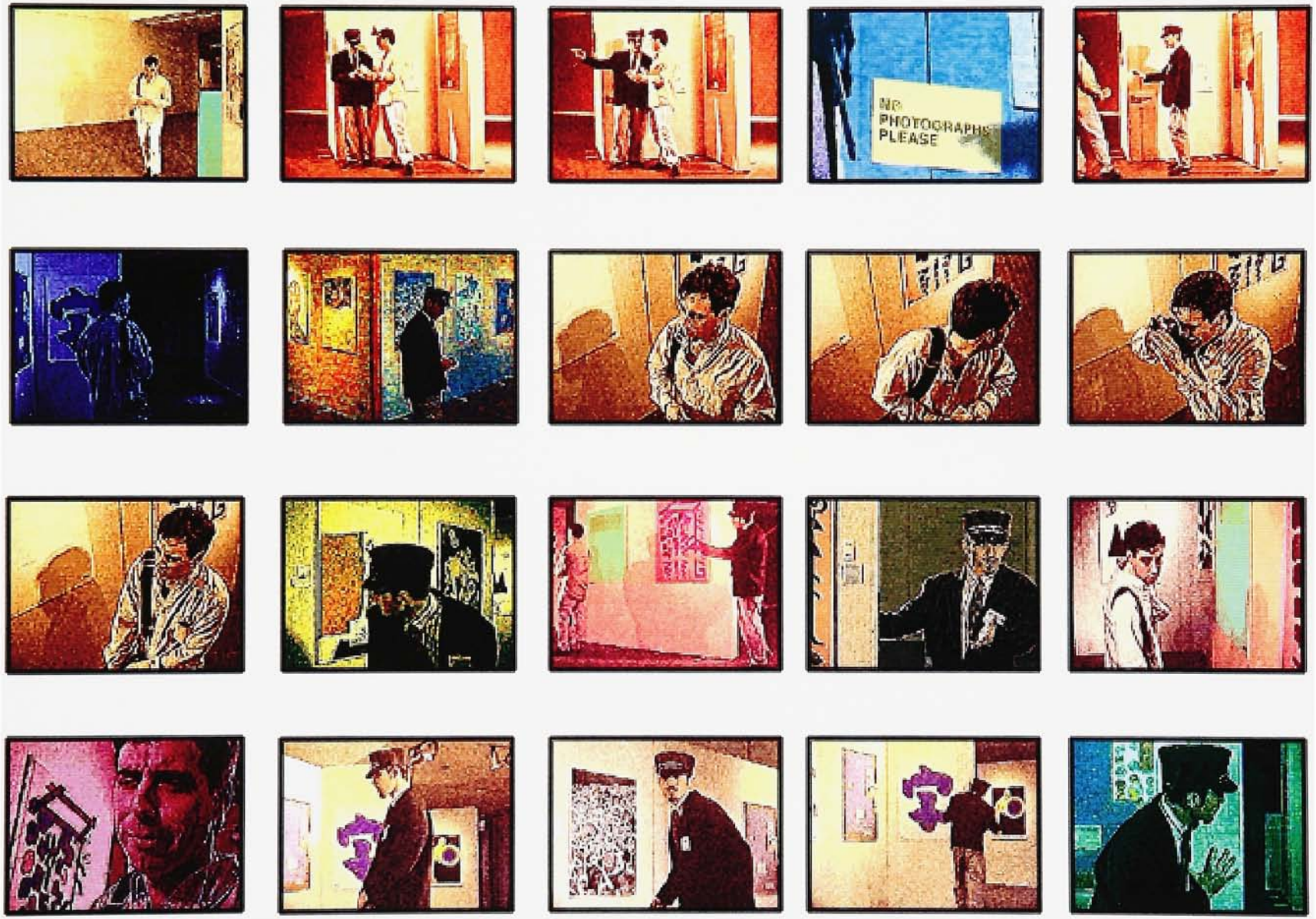
Software

Adobe Photoshop 2.5.1 and earlier versions
Adobe Premiere 4.0 and earlier versions
Xaos Tools version 1.0 *
KPT Tools version 2.1
Gallery Effects version 1.0, volume 1 *
Video Fusion
ScreenPlay

Hardware

Macintosh Quadra 700
Macintosh Centris 650
Macintosh Quadra 660 A/V and 840 A/V
Macintosh Power PC 6100/60
Macintosh Power PC 7100/66 AV
Macintosh Power PC 8100/66 AV
APS External Hard Drive (portable), 150 MB *
SyQuest Drive
Ten 44 MB cartridges *
3 Magneto Optical cartridges*
Video Spigot
Kensington TurboMouse 4.0 *
Maxell CD-R Recordable CD's (for backups, archiving and thesis presentation) *

Note: Hard disk space from 50 MB to 200 MB, and RAM from 8 to 24 MB was used to produce the animated short.
* Owned, considered into the thesis budget.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PHOTOGRAPHS
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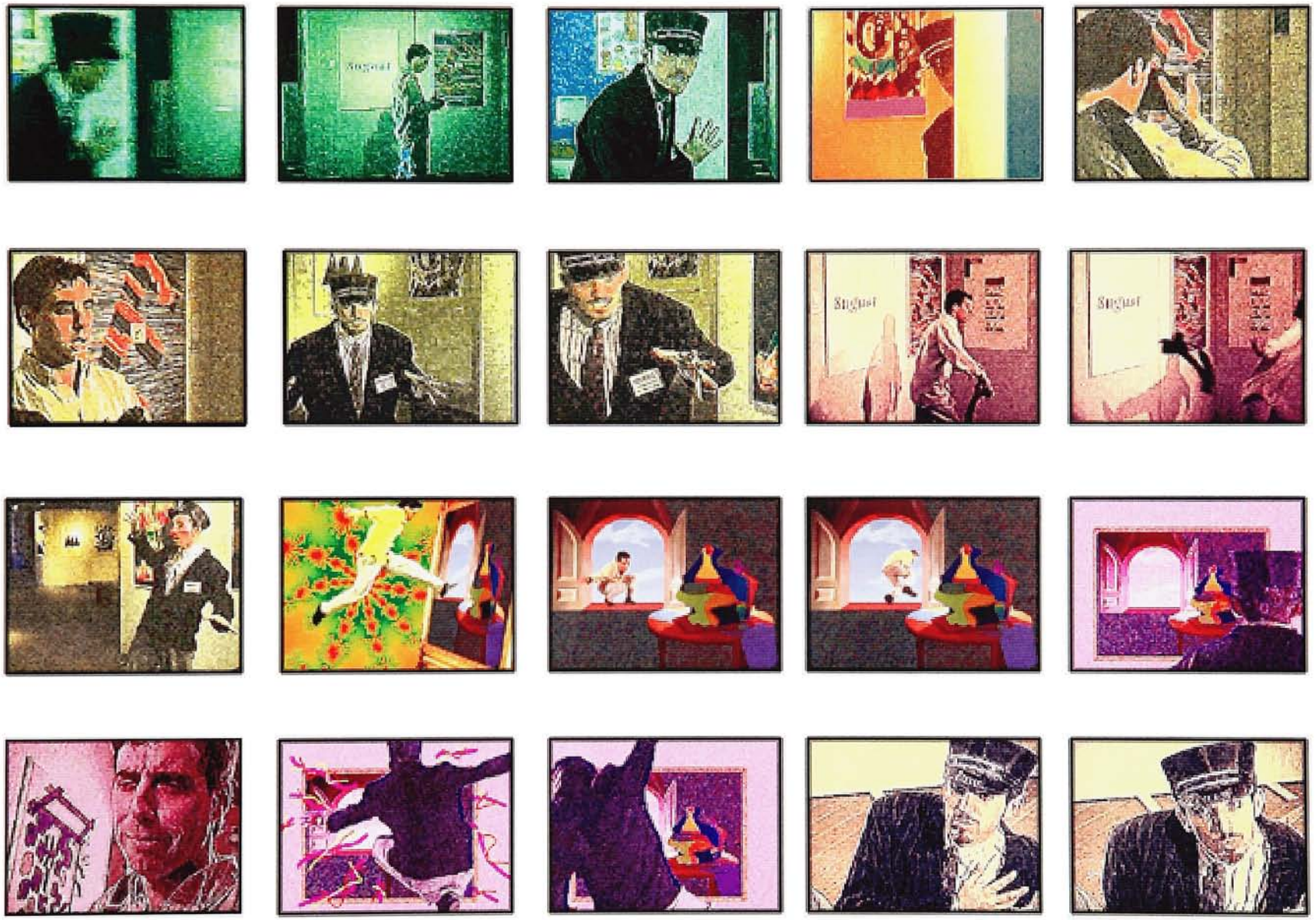
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